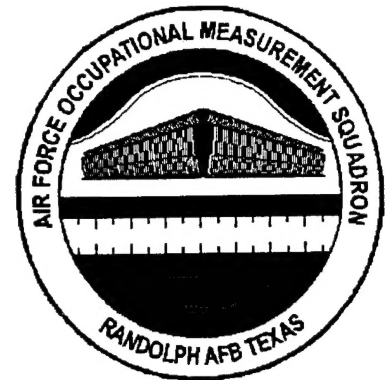


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**UNITED STATES
AIR FORCE**

OCCUPATIONAL SURVEY REPORT



AIRBORNE COMPUTER SYSTEMS

AFSC 1A5X1

AFPT 90-1A5-044

JUNE 1995

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**OCCUPATIONAL ANALYSIS PROGRAM
AIR FORCE OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION and TRAINING COMMAND
RANDOLPH AFB, TEXAS 78150-4449**

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PREFACE

This report presents the results of an Air Force Occupational Survey of the AFSC 1A5X1, Airborne Computer Systems, career ladder. Authority to conduct occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

CMSgt Herschel L. Firebaugh, Inventory Development Specialist, developed the survey instrument. Captain David W. Keller, Occupational Analyst, analyzed the data and wrote the final report. 1Lt Sheon Mendoza provided computer programming support. Major Randall C. Agee, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron, reviewed and approved this report for release.

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies are available upon request to the Air Force Occupational Measurement Squadron, Attention: Chief, Occupational Analysis Flight (OMY), 1550 5th Street East, Randolph AFB, Texas, 78150-4449 (DSN 487-6623).

RICHARD C. OURAND, JR., Lt Col, USAF
Commander
Air Force Occupational Measurement
Squadron

JOSEPH S. TARTELL
Chief, Occupational Analysis Flight
Air Force Occupational Measurement
Squadron

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SUMMARY OF RESULTS

1. Survey Coverage: The Airborne Computer Systems career ladder was surveyed primarily to provide a current data base for the career ladder (AFSC 1A5X1). AFMAN 36-2108 *Specialty Descriptions* for the AFSC 1A5X1 career ladder accurately portray the work performed by 3-, 5-, and 7-skill level personnel. Survey results are based on responses from 118 AFSC 1A5X1 personnel (68 percent of the assigned population).
2. Career Ladder Structure: Structure analysis identified only one job group, the Airborne Computer Systems job.
3. Career Ladder Progression: Personnel in the AFSC 1A5X1 career field follow an atypical career progression pattern. Members at all surveyed skill levels concentrate on technical functions, specifically maintaining data processing and display systems on the E-3 Sentry Airborne Warning and Control Aircraft. In addition, members across all skill levels responded with high percentages performing tasks associated with preflight inspections or procedures. For the most part, experienced members remain in technical jobs, rather than moving into traditional supervisory positions. While 7-skill level members do perform more supervisory, training, and administrative tasks than lower skill levels, the majority of their time continues to be spent in technical, aircrew-related duties.
4. Job Satisfaction Analysis: No serious job satisfaction problems appear to exist within this specialty. For the most part, respondents appear satisfied with their jobs. However, all surveyed TAFMS groups reported comparatively low expressed job interest ratings. In addition, reenlistment intentions of AFSC 1A5X1 first-enlistment personnel are lower than those of a comparative sample of similar Air Force personnel surveyed in 1993.
5. Implications: AFMAN 36-2108 *Specialty Descriptions* for the AFSC 1A5X1 career ladder are accurate. No serious job satisfaction problems appear to exist within this specialty. This career ladder is scheduled to merge with Airborne Radar Systems (AFSC 1A5X3) in late 1995. Career ladder managers should review the information contained in this OSR for possible use in future utilization and training considerations.

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**OCCUPATIONAL SURVEY REPORT (OSR)
AIRBORNE COMPUTER SYSTEMS
AFSC 1A5X1**

INTRODUCTION

This is a report of an occupational survey of the AFSC 1A5X1, Airborne Computer Systems, career ladder conducted by the Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS). This survey will provide current data for use in updating career ladder documents and training programs. AFSC 1A5X1 personnel were last surveyed in 1989 (then AFSC 118X0). This career ladder is scheduled to merge with Airborne Radar Systems (AFSC 1A5X3) in late 1995.

Background

According to AFMAN 36-2108 *Specialty Descriptions*, 3- and 5-skill level members are responsible for inspecting, operating, and troubleshooting airborne computer equipment. These duties include processing, displaying, and testing systems. They also perform preflight and postflight inspections on airborne computer, display, and ancillary equipment and systems.

Seven-skill level personnel perform the same technical tasks as the 3- and 5-skill level members. They are also responsible for supervising airborne computer and display systems activities, performing preflight and postflight inspections on airborne computer display and ancillary equipment, and instructing airborne computer systems maintenance personnel in operation, maintenance, repair, and test procedures.

Prior to being awarded the 1A531 AFSC, entrants must complete four formal training courses conducted at three different locations:

(1) J3AQR11010 000 -- Enlisted Aircrew Undergraduate. This course is located at Sheppard AFB, Texas, and is 2 weeks, 4 days, in duration. Course curriculum prepares volunteer enlisted crew candidates for specific follow-on, AFSC-awarding courses in various flying career fields. Training includes physiological training, security, aircrew coordination, mission briefings, mission support, TDY preparation, career progression, aircrew training, basic aerodynamics, flight medicine, safety, publications, antihijacking and antiterrorism, and life support equipment. The course gives candidates a brief introduction to their future lifestyle, obligations, and responsibilities as aircrew members, affording them an opportunity to seriously consider their decision to commit to a flying career.

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(2) E3AQR30020A 014 -- Common Electronic Training Program. This course is located at Keesler AFB, Mississippi, and is 15 weeks, 4 days in duration. Course curriculum provides basic principles in the fundamentals of electronics. Training includes: direct and alternating current (with emphasis on circuit application); principles of resistances, inductance, and capacitance and use within electrical circuits; the principles of circuit application of solid state devices, waveshaping circuits, digital logic and electron tubes; principles involved in transmitting and receiving radio waves, block diagram analysis of circuits used, and principles of microprocessor control. Hands-on training, using electronic test equipment, is provided as students perform laboratory exercises to learn techniques used in fault isolation and troubleshooting of electronic equipment.

(3) E3AQR1A531 001 -- Apprentice Airborne Computer Systems Specialist. This course is also located at Keesler AFB, Mississippi, and is 27 weeks, 4 days, in duration. This is an airborne computer equipment-oriented preparatory course. Training includes functional analysis of system hardware and software components to the extent required to satisfy initial skills training requirements for performance of organization and intermediate (O/I) maintenance of E-3 data processor and display equipment.

(4) E3000BQOMX -- Airborne Computer Display Maintenance Technician (CDMT). This AFSC-awarding course is located at Tinker AFB, Oklahoma, and is 13 weeks, 4 days, in duration. This course trains the CDMTs to perform the operational and inflight maintenance tasks on the E-3 AWACS computer systems.

Entry into this career ladder requires a General Armed Forces Vocational Aptitude Test Battery (ASVAB) Electronic score of at least 67. In addition, entrants must meet or exceed the Strength and Stamina Requirement of "G" (lifting a weight of 40 lbs).

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI), AFPT 90-1A5-044, dated June 1994. A tentative task list was prepared after reviewing pertinent career ladder publications and directives and tasks from previous applicable OSRs. The preliminary task list was refined and validated through personal interviews with 11 subject-matter experts at the following locations:

| <u>BASE</u> | <u>REASON FOR VISIT</u> |
|-----------------|-------------------------------|
| Keesler AFB, MS | Technical Training School |
| Tinker AFB, OK | Primary Career Field Location |

Others contacted included the Career Field Manager, the Training Manager, and MAJCOM functional managers.

The resulting JI contained a comprehensive listing of 381 tasks grouped under 15 duty headings, with a background section requesting such information as grade, job title, time in present job, time in service, time in career field, and job satisfaction indicators.

Survey Administration

From August 1994 through October 1994, Military Personnel Flights at operational bases worldwide administered the inventory to all eligible DAFSC 1A5X1 personnel. Members eligible for the survey consisted of the total assigned 3-, 5-, and 7-skill level population, excluding the following: (1) hospitalized personnel; (2) personnel in transition for a permanent change of station; (3) personnel retiring within the time the inventories were administered to the field; and (4) personnel in their jobs less than 6 weeks. Participants were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Military Personnel Center, Randolph Air Force Base, Texas.

Each individual who completed the inventory first filled in an identification and biographical information section and then checked each task performed in the job. After checking tasks performed, each individual rated the tasks checked on a 9-point scale showing relative time spent on that task, compared to other tasks performed. The ratings ranged from 1 (very small amount time spent) to 9 (very large amount time spent).

To determine relative time spent for each task, all of the incumbent's ratings are assumed to account for 100 percent of time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100 to provide a relative percentage of time spent on each task.

Survey Sample

Personnel were selected to participate in this study so as to ensure an accurate representation across MAJCOMs and paygrades. Table 1 reflects the percentage distribution, by MAJCOM, of assigned, eligible, and surveyed individuals included in the survey sample.

| TABLE 1 PAYGRADE DISTRIBUTION OF SAMPLE | | | |
|--|--------------------------------|--------------------------------|------------------------------|
| <u>MAJCOM</u> | <u>PERCENT OF ASSIGNED</u> | <u>PERCENT OF ELIGIBLE</u> | <u>PERCENT IN SAMPLE</u> |
| ACC | 79 | 87 | 90 |
| PACAF | 10 | 12 | 8 |
| EUR* | 10 | -- | -- |
| AETC | 1 | 1 | 2 |
| * -- Air Force Elements Europe personnel were not included in the survey sample. | | | |
| TOTAL ASSIGNED = 173 | | | |
| TOTAL SURVEYED = 149 | | | |
| TOTAL IN SAMPLE = 118 | | | |
| PERCENT OF ASSIGNED IN SAMPLE = 68% | | | |
| PERCENT OF SURVEYED IN SAMPLE = 79% | | | |

Table 2 reflects the percentage distribution by paygrade groups. As shown by both tables, the survey sample accurately reflects the overall population of the career ladder.

| TABLE 2 PAYGRADE DISTRIBUTION OF SAMPLE | | | |
|--|--------------------------------|--------------------------------|------------------------------|
| <u>PAYGRADE</u> | <u>PERCENT OF ASSIGNED</u> | <u>PERCENT OF ELIGIBLE</u> | <u>PERCENT IN SAMPLE</u> |
| E-1 to E-4 | 56 | 63 | 57 |
| E-5 | 26 | 23 | 25 |
| E-6 | 11 | 9 | 12 |
| E-7 | 6 | 4 | 5 |
| E-8 to E-9 | 1 | 1 | 1 |

Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. To obtain the needed task factor data, selected senior AFSC 1A5X1 personnel (generally E-6 or E-7 craftsmen) also completed a second booklet for either training emphasis (TE) or task difficulty (TD). The TE and TD booklets were processed separately from the JIs. This information is used in a number of different analyses discussed in more detail within this report.

Training Emphasis (TE). Training emphasis is defined as the degree of emphasis that should be placed on each task for structured training of first-enlistment personnel. Structured training is defined as resident technical schools, field training detachments, mobile training teams, formal on-the-job training (OJT), or any other organized training method. Twenty experienced AFSC 1A5X1 NCOs rated the tasks in the inventory on a 10-point scale ranging from 0 (no training required) to 9 (extremely high training emphasis). Overall agreement among the raters was very high.

The average TE rating for this study is 3.54, with a standard deviation of 1.63. Thus, tasks with a TE rating of 5.17 or greater are considered to be the most important for first-enlistment personnel to know how to perform.

Task Difficulty (TD). Task difficulty is defined as the amount of time needed to learn to perform each task satisfactorily. Twenty-five experienced AFSC 1A5X1 supervisors rated the difficulty of the tasks in the inventory using a 9-point scale ranging from 1 (extremely low difficulty) to 9 (extremely high difficulty). Interrater agreement among these respondents was acceptable. TD ratings are normally adjusted so tasks of average difficulty have a value of 5.00 and a standard deviation of 1.00. Any task with a difficulty of 6.00 or greater is considered to be difficult to learn.

When used in conjunction with the primary criterion of percent members performing, TD and TE ratings can provide insight into first-enlistment personnel training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting Air Force Specialty entry-level jobs.

CAREER LADDER STRUCTURE

The first step in the analysis process is to identify the structure of career ladders in terms of the jobs performed by the respondents. The Comprehensive Occupational Data Analysis Programs (CODAP) assists by creating an individual job description for each respondent based on the tasks performed and relative amount of time spent on these tasks. The CODAP automated job clustering program then compares all the individual job descriptions, locates the two descriptions with the most similar tasks and time spent ratings, and combines them to form a composite job description. In successive stages, CODAP either adds new members to this initial group or forms new groups based on the similarity of tasks and time spent ratings.

The basic group used in the hierarchical clustering process is the job. When two or more jobs have a substantial degree of similarity in tasks performed and time spent on tasks, they are grouped together and identified as a cluster. The structure of the career ladder is then defined in terms of jobs and clusters of jobs.

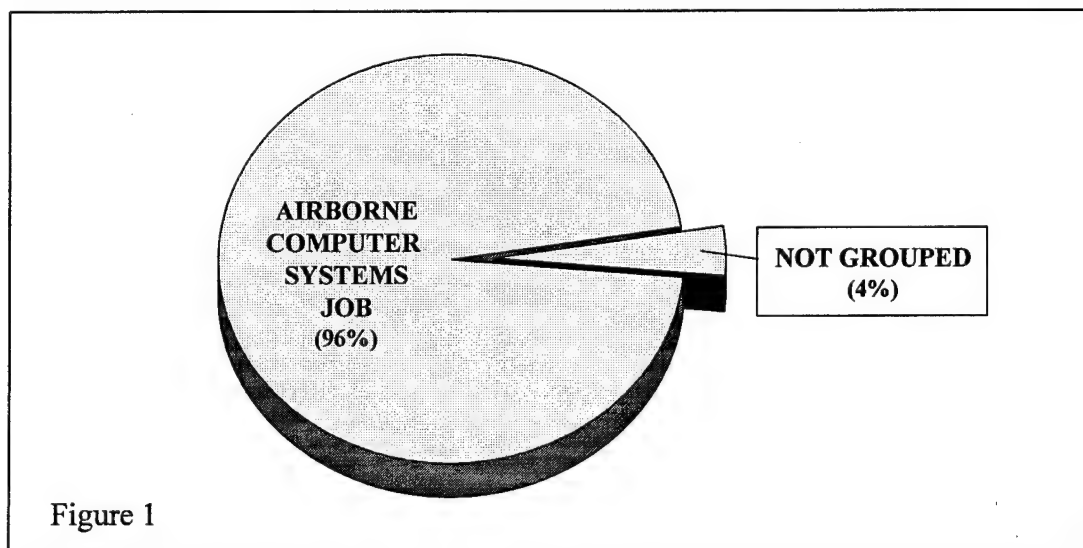
Overview of Specialty Jobs

Based on the analysis of tasks performed and the amount of time spent performing each task, only one job was identified within the surveyed career ladder:

AIRBORNE COMPUTER SYSTEMS JOB (STG 06, N=113)

The stage (STG) number shown beside the title references computer-printed information; the letter "N" represents the number of personnel in the group.

The respondents forming this group account for 96 percent of the survey sample. Figure 1 shows the career ladder structure identified during survey analysis.



Respondents comprising the remaining 4 percent of the survey sample were performing tasks which did not group with the Airborne Computer Systems Job. Some of these respondents devoted large amounts of their job time to areas such as formal course instruction, technical order administration, and contracting.

Group Description

A brief description of the Airborne Computer Systems Job is included below. Appendix A lists representative tasks performed by members of this job group. Table 3 displays time spent on duties, while Table 4 provides demographic information for this job group.

AIRBORNE COMPUTER SYSTEMS JOB (STG06).

The 113 members of this job represent 96 percent of the total survey sample. This is the core work of the AFSC 1A5X1 career ladder. Personnel in this job group spend 36 percent of their job time maintaining data processing and display systems (see Table 3). Associated tasks include cleaning situation display console (SDC) switches, cleaning digital display indicator (DDI) switches, and detecting and isolating faults to various components. In addition, members of this job spend 13 percent of their job time performing preflight inspections or procedures. Tasks associated with this duty area include performing preflight inspections of SDCs, oxygen or special audio distribution system panels, and life support equipment. On average, Airborne Computer Systems job members perform 233 tasks.

| AIRBORNE COMPUTER SYSTEMS JOB | |
|-------------------------------------|-----------|
| Number of members | 113 |
| Percent of total sample | 96% |
| Average number of tasks performed | 233 |
| Average time in present job | 3 yrs |
| Average time in career field | 6 yrs |
| Predominant paygrade | E-4 (47%) |
| Average TAFMS | 7.6 yrs |
| Average number of days TDY per year | 106 days |

Representative tasks for this job include:

- Monitor or operate airborne operational computer programs (AOCs)
- Perform MTT loading procedures
- Monitor operator computer console
- Monitor DDIs
- Clean SDC switches
- Load or unload programs using magnetic tapes
- Load or unload programs using operator computer control (OCC) panels
- Initiate programs using digital display indicators (DDIs) and keyboard
- Monitor emergency warning indicators
- Clean magnetic tape transport (MTT) contact surfaces
- Monitor cooling indicators
- Operate DDI keyboard, other than when loading programs
- Perform preflight inspections of SDCs

TABLE 3

AVERAGE PERCENT TIME SPENT ON DUTIES

| DUTIES | AIRBORNE COMPUTER SYSTEMS JOB (STG06) |
|---|---|
| A ORGANIZING AND PLANNING | 2 |
| B DIRECTING AND IMPLEMENTING | 2 |
| C INSPECTING AND EVALUATING | 1 |
| D TRAINING | 4 |
| E PERFORMING ADMINISTRATIVE AND SUPPLY ACTIVITIES | 5 |
| F PERFORMING GENERAL IN-FLIGHT ACTIVITIES | 11 |
| G MONITORING AND OPERATING ELECTRONIC COMPUTER SYSTEMS | 10 |
| H PERFORMING PREMISSION AND POSTMISSION ACTIVITIES | 5 |
| I PERFORMING PREFLIGHT INSPECTIONS OR PROCEDURES | 13 |
| J MAINTAINING DATA PROCESSING SYSTEMS | 20 |
| K MAINTAINING DATA DISPLAY SYSTEMS | 16 |
| L MAINTAINING ELECTRONIC SYSTEM TEST SET GROUPS | 2 |
| M MAINTAINING POWER DISTRIBUTION SYSTEMS | 3 |
| N MAINTAINING COOLING DISTRIBUTION SYSTEMS | 3 |
| O PERFORMING MOBILITY ACTIVITIES | 3 |

TABLE 4
SELECTED BACKGROUND DATA

| | AIRBORNE COMPUTER SYSTEMS JOB | |
|-----------------------------------|--|--|
| NUMBER IN GROUP | 113 | |
| PERCENT OF SAMPLE | 96% | |
| <u>DAFSC DISTRIBUTION:</u> | | |
| 1A531 | 25% | |
| 1A551 | 56% | |
| 1A571 | 19% | |
| <u>PAYGRADE DISTRIBUTION:</u> | | |
| E-1 to E-4 | 58% | |
| E-5 | 27% | |
| E-6 | 10% | |
| E-7 | 4% | |
| E-8 to E-9 | 1% | |
| Average number of tasks performed | 233 | |
| Average years TAFMS | 7.6 | |
| Percent in first enlistment | 39% | |

Respondents holding this job vary widely across experience levels and paygrades. For example, the average time in the AFSC 1A5X1 career field for all Airborne Computer Systems job members is just under 6 years. However, incumbents in this job range from less than 1 year to over 15 years' experience in the AFSC 1A5X1 career ladder. Survey data also show that this job is performed by personnel in military paygrades ranging from E-3 through E-7 (primarily by E-4 and E-5 personnel). Table 4 shows expanded background data across the Airborne Computer Systems job.

Comparison of Current Group Descriptions to Previous Study

The results of the specialty job analysis were compared to the previous OSR, AFPT 90-118-840, dated June 1989. Table 5 lists the job structure identified in the current report to the equivalent job structure from the 1989 report. As shown in Table 5, the career ladder structure has remained very similar since the 1989 survey, with one dominant job group identified. Unlike the 1989 survey, however, no Supervisors/Trainers or Computer Display (CD) Instructors job variations were identified in the current report. While current survey analysis did identify some personnel who perform tasks similar to the members of these 1989 job variations, these personnel did not substantially depart from the tasks and duties associated with the Airborne Computer Systems job.

| TABLE 5 SPECIALTY JOB COMPARISONS BETWEEN CURRENT AND 1989 SURVEYS | | | |
|---|------------------|--|------------------|
| CURRENT JOB TITLE | PCT OF SAMPLE | 1989 SURVEY JOB TITLE | PCT OF SAMPLE |
| AIRBORNE COMPUTER SYSTEMS JOB | 96% | COMPUTER DISPLAY MAINTENANCE PERSONNEL CLUSTER A. Supervisor/Trainers Variation B. Computer Display (CD) Instructors Variation | 99% |
| NOT GROUPED | 4% | NOT GROUPED | 1% |

Summary

In summary, structure analysis reveals one highly homogeneous job group, the Airborne Computer Systems job. Ninety-six percent of all survey sample respondents grouped into this job, based on performing similar tasks, and spending similar amounts of time on those tasks. This high degree of homogeneity is atypical of most Air Force career ladders. The AFSC 1A5X1 career ladder has remained constant when compared to 1989 OSR data.

SKILL AND EXPERIENCE ANALYSIS

Analysis of DAFSC Groups

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. DAFSC analysis examines differences in tasks performed between skill levels. This information may then be used to evaluate how well career ladder documents, such as AFMAN 36-2108 *Specialty Descriptions* and the Career Field Education and Training Plan (CFETP), reflect what career ladder personnel are actually doing in the field.

Table 6 displays the relative percent time spent on each duty across skill-level groups. As can be seen, personnel across all skill levels spend high percentages of time in highly technical duty areas, especially in maintaining data processing and display systems. For this reason, an atypical career progression pattern is noted within the career ladder, with personnel at all skill levels concentrating on fairly technical tasks. Seven-skill level members do perform some supervisory duties, but continue to spend the majority of work time in the two aforementioned duties. Specific skill-level group discussions are presented below.

Skill-Level Groups Descriptions and Comparisons

DAFSC 1A531. Three-skill level members perform an average of 211 tasks and average 2 years in the specialty. Ninety-three percent hold E-3 or E-4 paygrades. Table 6 shows that 39 percent of their job time is spent maintaining data processing and display systems. Table 7 lists representative tasks these members perform.

DAFSC 1A551. Five-skill level members comprise the largest group in this career ladder. These 66 members perform an average of 226 tasks and average just under 6 years in the career ladder. Fifty-nine percent of these members hold paygrade E-4. An additional 32 percent possess an E-5 paygrade. As with 3-skill level members, most 5-skill level airmen spend the greatest percentages of time maintaining data processing and display systems (see Table 6). Table 8 lists representative tasks for these incumbents.

As Table 8 shows, DAFSC 1A551 personnel perform tasks very similar to those performed by 3-skill level members. Tasks which best distinguish 5-skill level personnel from their junior counterparts are presented in Table 9. The key difference is a modest increased emphasis on training and supervisory functions by 5-skill level members. Examples of tasks with the greatest difference in members performing include supervising AFSC 1A531 personnel, annotating training records, and conducting in-flight training.

TABLE 6

TIME SPENT ON DUTIES BY MEMBERS OF SKILL-LEVEL GROUPS
(RELATIVE PERCENT OF JOB TIME)

| | DAFSC 1A531 (N=29) | DAFSC 1A551 (N=66) | DAFSC 1A571 (N=23) |
|--|--------------------------|--------------------------|--------------------------|
| A ORGANIZING AND PLANNING | 1 | 3 | 3 |
| B DIRECTING AND IMPLEMENTING | -- | 2 | 3 |
| C INSPECTING AND EVALUATING | 1 | 1 | 4 |
| D TRAINING | -- | 6 | 6 |
| E PERFORMING ADMINISTRATIVE AND SUPPLY ACTIVITIES | 4 | 5 | 6 |
| F PERFORMING GENERAL IN-FLIGHT ACTIVITIES | 12 | 11 | 10 |
| G MONITORING AND OPERATING ELECTRONIC COMPUTER SYSTEMS | 11 | 10 | 9 |
| H PERFORMING PERMISSION AND POSTMISSION ACTIVITIES | 5 | 5 | 4 |
| I PERFORMING PREFLIGHT INSPECTIONS OR PROCEDURES | 13 | 13 | 10 |
| J MAINTAINING DATA PROCESSING SYSTEMS | 23 | 19 | 18 |
| K MAINTAINING DATA DISPLAY SYSTEMS | 16 | 15 | 15 |
| L MAINTAINING ELECTRONIC SYSTEM TEST SET GROUPS | 3 | 2 | 2 |
| M MAINTAINING POWER DISTRIBUTION SYSTEMS | 3 | 2 | 3 |
| N MAINTAINING COOLING DISTRIBUTION SYSTEMS | 4 | 3 | 4 |
| O PERFORMING MOBILITY ACTIVITIES | 4 | 3 | 3 |

TABLE 7

REPRESENTATIVE TASKS PERFORMED BY AFSC 1A531 PERSONNEL

| TASKS | PERCENT MEMBERS PERFORMING (N=29) |
|--|--|
| F163 Perform MTT loading procedures | 100 |
| G179 Monitor or operate airborne operational computer programs (AOCs) | 100 |
| G178 Monitor operator computer console | 100 |
| F157 Load or unload programs using operator computer control (OCC) panels | 100 |
| G176 Monitor DDIs | 100 |
| F156 Load or unload programs using magnetic tapes | 100 |
| G177 Monitor emergency warning indicators | 100 |
| F144 Clean magnetic tape transport (MTT) contact surfaces | 100 |
| G175 Monitor cooling indicators | 100 |
| G171 Coordinate computer system mission or simulator status with mission crew commander (MCC) or other users | 100 |
| K287 Clean CDC switches | 100 |
| I221 Perform preflight inspections of CDCs | 100 |
| F145 Coordinate computer status with mission crew | 100 |
| G173 Discriminate between hardware and software failures | 100 |
| H198 Perform premission requirements, such as reviewing flight crew information file (FCIF) and annotating flight orders | 100 |
| H193 Examine historical data for recurring equipment problems | 100 |
| G189 Perform drum initialized override data tape (DIODT) switch actions | 100 |
| I217 Perform preflight inspections of oxygen or special audio distribution system panels | 100 |
| G182 Monitor SDCs | 100 |
| I212 Perform preflight inspections of in-flight spares, technical orders, or templates | 100 |
| I213 Perform preflight inspections of life support equipment or seats | 100 |
| H194 Identify mission software requirements | 100 |
| J274 Load and operate MCPs | 100 |
| I215 Perform preflight inspections of MTTs or LPs | 100 |
| I210 Perform preflight inspections of electronic command signals programmers (ECSPs) | 100 |
| H192 Debrief ground maintenance personnel | 100 |
| I208 Perform preflight inspections of digital computer racks (DCRs) | 100 |
| H200 Review, annotate, or initiate aircraft flight or maintenance record forms, such as AFTO Forms 781 series | 100 |
| I216 Perform preflight inspections of OCC panels | 100 |
| I223 Perform visual inspections of cables or connector air ducts | 100 |
| K311 Isolate faults to SDCs | 100 |
| I205 Perform preflight inspections of cooling system indicators | 100 |

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY AFSC 1A551 PERSONNEL

| TASKS | PERCENT MEMBERS PERFORMING (N=66) |
|--|--|
| G179 Monitor or operate airborne operational computer programs (AOCs) | 97 |
| F163 Perform MTT loading procedures | 97 |
| G178 Monitor operator computer console | 97 |
| G176 Monitor DDIs | 97 |
| F156 Load or unload programs using magnetic tapes | 97 |
| G175 Monitor cooling indicators | 97 |
| G177 Monitor emergency warning indicators | 97 |
| F146 Initiate programs using digital display indicators (DDIs) and keyboard | 97 |
| F145 Coordinate computer status with mission crew | 97 |
| H192 Debrief ground maintenance personnel | 97 |
| I221 Perform preflight inspections of CDCs | 97 |
| G182 Monitor SDCs | 97 |
| G185 Operate DDI keyboard, other than when loading programs | 97 |
| I217 Perform preflight inspections of oxygen or special audio distribution system panels | 97 |
| I220 Perform preflight inspections of peripheral rack II | 97 |
| I215 Perform preflight inspections of MTTs or LPs | 97 |
| I223 Perform visual inspections of cables or connector air ducts | 97 |
| I218 Perform preflight inspections of P-67 circuit breaker panels | 97 |
| I219 Perform preflight inspections of peripheral rack I | 97 |
| I213 Perform preflight inspections of life support equipment or seats | 97 |
| I212 Perform preflight inspections of in-flight spares, technical orders, or templates | 97 |
| I216 Perform preflight inspections of OCC panels | 97 |
| I210 Perform preflight inspections of electronic command signals programmers (ECSPs) | 97 |
| I208 Perform preflight inspections of digital computer racks (DCRs) | 97 |
| I214 Perform preflight inspections of MTT-3 direct load cables | 97 |
| I207 Perform preflight inspections of DDIs | 97 |
| I224 Secure magnetic tape cases on aircraft | 97 |
| I209 Perform preflight inspections of digital multiplexer (DMX) units | 97 |
| I202 Perform preflight inspections of computer arithmetic units (CAUs) | 97 |
| F155 Load or unload programs using magnetic drums | 97 |
| G173 Discriminate between hardware and software failures | 97 |

TABLE 9

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 1A531 AND DAFSC 1A551 PERSONNEL
(PERCENT MEMBERS PERFORMING)

| TASKS | 1A531 (N=29) | 1A551 (N=66) | DIFFERENCE |
|---|-----------------|-----------------|------------|
| K292 Detect faults within DDI using display dialog | 69 | 47 | 22 |
| B41 Supervise Airborne Computer Systems Apprentices (AFSC 1A531) | 7 | 61 | -54 |
| D76 Annotate training records | 7 | 61 | -54 |
| D81 Conduct in-flight training | 10 | 64 | -54 |
| B28 Counsel personnel | 3 | 50 | -47 |
| D99 Prepare lesson plans | 7 | 53 | -46 |
| D93 Evaluate progress of trainees | 3 | 42 | -39 |
| D97 Plan training | 0 | 38 | -38 |
| D96 Maintain training records, charts, or graphs | 3 | 41 | -38 |
| D75 Administer tests | 0 | 36 | -36 |
| D92 Evaluate personnel to determine training needs | 0 | 35 | -35 |
| D103 Score tests | 0 | 35 | -35 |
| D83 Conduct mission qualification training (MQT) | 3 | 38 | -35 |
| B37 Initiate action to correct substandard performance of personnel | 3 | 35 | -32 |
| D91 Evaluate crewmember performance, such as CDMO, CDMT, Instructor CDMT, or Evaluator CDMT | 7 | 38 | -31 |
| C56 Evaluate personnel for compliance with technical orders | 0 | 30 | -30 |
| D86 Determine in-flight training requirements | 3 | 33 | -30 |

DAFSC 1A571. Seven-skill level members in this career ladder, unlike most conventional Air Force specialties, continue to perform a large number of mainly technical tasks (226). The 23 members of this group average nearly 10 years in the Airborne Computer Systems career ladder. Sixty-five percent are either Technical or Master Sergeants. Like previous skill level groups, Table 6 shows DAFSC 1A571 members spend the highest percentage of their overall job time maintaining data processing and display systems. While these members do show a small increase in supervisory and management duties, the primary focus of their overall job time remains in technical duty areas. Table 10 lists representative tasks DAFSC 1A571 members perform.

Tasks which best distinguish DAFSC 1A571 personnel from DAFSC 1A551 personnel are presented in Table 11. As expected, DAFSC 1A571 personnel perform more supervisory and management duties than their junior counterparts. Examples of tasks with the greatest difference in members performing include evaluating personnel, writing EPRs, and directing or implementing training programs.

AFMAN 36-2108 *Specialty Descriptions* Analysis

Survey data were compared to the AFMAN 36-2108 *Specialty Descriptions* for AFSC 1A5X1 Airborne Computer Systems Apprentices, Craftsmen, and Journeymen, dated 31 October 1994, effective 31 October 1993. The descriptions for the 3-, 5-, and 7-skill level members were accurate, depicting the technical aspects of the job, as well as the modest increase in supervisory responsibilities previously described in the DAFSC analysis.

After the merger of the AFSC 1A5X1 and AFSC 1A5X3 personnel, future AFMAN 36-2108 *Specialty Descriptions* should encompass the core work of this career ladder as outlined in this report.

TABLE 10

REPRESENTATIVE TASKS PERFORMED BY AFSC 1A571 PERSONNEL

| TASKS | PERCENT MEMBERS PERFORMING (N=23) |
|--|--|
| G179 Monitor or operate airborne operational computer programs (AOCs) | 100 |
| G178 Monitor operator computer console | 100 |
| F163 Perform MTT loading procedures | 100 |
| K287 Clean CDC switches | 100 |
| G176 Monitor DDIs | 100 |
| F146 Initiate programs using digital display indicators (DDIs) and keyboard | 100 |
| G177 Monitor emergency warning indicators | 100 |
| F157 Load or unload programs using operator computer control (OCC) panels | 100 |
| F156 Load or unload programs using magnetic tapes | 100 |
| G185 Operate DDI keyboard, other than when loading programs | 100 |
| F144 Clean magnetic tape transport (MTT) contact surfaces | 100 |
| G175 Monitor cooling indicators | 100 |
| F153 Interpret visual fault indicators for fault isolations | 100 |
| F150 Interpret on-line status indicators for fault isolations | 100 |
| I217 Perform preflight inspections of oxygen or special audio distribution system panels | 100 |
| G187 Operate OCC panels | 100 |
| F145 Coordinate computer status with mission crew | 100 |
| K311 Isolate faults to SDCs | 100 |
| I223 Perform visual inspections of cables or connector air ducts | 100 |
| I220 Perform preflight inspections of peripheral rack II | 100 |
| G189 Perform drum initialized override data tape (DIODT) switch actions | 100 |
| K324 Isolate faults within SDCs to malfunctioning monitor units | 100 |
| I208 Perform preflight inspections of digital computer racks (DCRs) | 100 |
| I218 Perform preflight inspections of P-67 circuit breaker panels | 100 |
| I215 Perform preflight inspections of MTTs or LPs | 100 |
| I216 Perform preflight inspections of OCC panels | 100 |
| I213 Perform preflight inspections of life support equipment or seats | 100 |
| K310 Isolate faults to SDC refresh channels | 100 |
| I207 Perform preflight inspections of DDIs | 100 |
| H198 Perform premission requirements, such as reviewing flight crew information file (FCIF) and annotating flight orders | 100 |
| H192 Debrief ground maintenance personnel | 100 |
| I210 Perform preflight inspections of electronic command signals programmers (ECSPs) | 100 |
| H190 Check out or turn in mission software or support documents | 100 |

TABLE 11

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 1A551 AND DAFSC 1A571 PERSONNEL
(PERCENT MEMBERS PERFORMING)

| TASKS | AFSC 1A551 (N=66) | | AFSC 1A571 (N=23) | | DIFFERENCE |
|---|-------------------------|--|-------------------------|--|------------|
| | | | | | |
| O376 Perform alert crew changeovers | 70 | | 35 | | 35 |
| O375 Perform alert aircraft changeovers | 65 | | 30 | | 35 |
| <hr/> | | | | | |
| E123 Initiate Software Design Reports (SDRs) | 15 | | 61 | | -46 |
| B42 Supervise Airborne Computer Systems Journeymen (AFSC 1A551) | 29 | | 74 | | -45 |
| B39 Interpret policies, directives, or procedures for subordinates | 30 | | 74 | | -44 |
| E142 Write inputs for SDRs | 12 | | 52 | | -40 |
| C57 Evaluate personnel for promotion, demotion, reclassification, or special awards | 12 | | 52 | | -40 |
| E121 Initiate document error reports (DERs) for operator manuals | 21 | | 61 | | -40 |
| C69 Review EPRs | 14 | | 52 | | -38 |
| C71 Review technical order changes | 29 | | 65 | | -36 |
| C49 Draft replies to inspection reports | 3 | | 39 | | -36 |
| D90 Direct or implement training programs | 21 | | 57 | | -36 |
| C72 Write EPRs | 30 | | 65 | | -35 |
| D92 Evaluate personnel to determine training needs | 35 | | 70 | | -35 |

TRAINING ANALYSIS

Occupational surveys provide information which can be useful in the development and revision of relevant training programs. Analysis is primarily directed at members in their first-enlistment (1-48 months TAFMS). Factors used to evaluate training programs include duties being performed by members, percentages of members performing specific tasks, ratings of how much training emphasis (TE) tasks should receive in formal training, and relative task difficulty (TD) ratings.

First Enlistment Analysis

In this study, there are 45 AFSC 1A5X1 members with 1-48 months TAFMS, representing 38 percent of the total survey sample. Table 12 shows AFSC 1A5X1 first-enlistment personnel spend approximately 40 percent of their time performing technical duties such as maintaining data processing and display systems. Table 13 displays representative tasks performed by AFSC 1A5X1 personnel with 1-48 months TAFMS.

Training Emphasis (TE) and Task Difficulty (TD) Data

TE and TD data are secondary task factors that can help training development personnel decide which tasks to emphasize for entry-level training. These ratings, based on the judgments of senior career ladder NCOs at operational units, provide a rank-ordering of those tasks considered important for airmen with 1-48 months TAFMS (TE) and a measure of the relative difficulty of those tasks (TD). When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors (TE and TD), accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for new personnel. These decisions must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

To assist training development personnel, AFOMS developed a computer program that uses these task factors and the percentage of 1-48 months TAFMS personnel performing tasks to produce Automated Training Indicators (ATI). ATI correspond to training decisions listed and defined in the Training Decision Logic Table found in Attachment 1, ACTOR 52-22. ATI allow training developers to quickly focus attention on those tasks which are most likely to qualify for resident course consideration.

Tasks having the highest TE ratings for AFSC 1A5X1 personnel with 1-48 months TAFMS are listed in Table 14. Included for each task are the percentage of 1-24 months TAFMS

TABLE 12

RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY
AFSC 1A5X1 PERSONNEL WITH 1-48 MONTHS TAFMS

| DUTIES | PERCENT TIME <u>SPENT</u> |
|--|---------------------------------|
| A ORGANIZING AND PLANNING | 1 |
| B DIRECTING AND IMPLEMENTING | -- |
| C INSPECTING AND EVALUATING | -- |
| D TRAINING | 1 |
| E PERFORMING ADMINISTRATIVE AND SUPPLY ACTIVITIES | 4 |
| F PERFORMING GENERAL IN-FLIGHT ACTIVITIES | 12 |
| G MONITORING AND OPERATING ELECTRONIC COMPUTER SYSTEMS | 10 |
| H PERFORMING PREMISSION AND POSTMISSION ACTIVITIES | 5 |
| I PERFORMING PREFLIGHT INSPECTIONS OR PROCEDURES | 13 |
| J MAINTAINING DATA PROCESSING SYSTEMS | 23 |
| K MAINTAINING DATA DISPLAY SYSTEMS | 17 |
| L MAINTAINING ELECTRONIC SYSTEM TEST SET GROUPS | 3 |
| M MAINTAINING POWER DISTRIBUTION SYSTEMS | 3 |
| N MAINTAINING COOLING DISTRIBUTION SYSTEMS | 4 |
| O PERFORMING MOBILITY ACTIVITIES | 4 |

TABLE 13
REPRESENTATIVE TASKS PERFORMED BY
FIRST-ENLISTMENT (1-48 MONTHS TAFMS) PERSONNEL

| TASKS | PERCENT MEMBERS PERFORMING (N=45) |
|--|--|
| F163 Perform MTT loading procedures | 100 |
| G179 Monitor or operate airborne operational computer programs (AOCPs) | 100 |
| G178 Monitor operator computer console | 100 |
| F156 Load or unload programs using magnetic tapes | 100 |
| G176 Monitor DDIs | 100 |
| F157 Load or unload programs using operator computer control (OCC) panels | 100 |
| F144 Clean magnetic tape transport (MTT) contact surfaces | 100 |
| G177 Monitor emergency warning indicators | 100 |
| G175 Monitor cooling indicators | 100 |
| I221 Perform preflight inspections of SDCs | 100 |
| G171 Coordinate computer system mission or simulator status with mission crew commander (MCC) or other users | 100 |
| F145 Coordinate computer status with mission crew | 100 |
| H198 Perform premission requirements, such as reviewing flight crew information file (FCIF) and annotating flight orders | 100 |
| I217 Perform preflight inspections of oxygen or special audio distribution system panels | 100 |
| G173 Discriminate between hardware and software failures | 100 |
| I213 Perform preflight inspections of life support equipment or seats | 100 |
| I212 Perform preflight inspections of in-flight spares, technical orders, or templates | 100 |
| I215 Perform preflight inspections of MTTs or LPs | 100 |
| H192 Debrief ground maintenance personnel | 100 |
| I210 Perform preflight inspections of electronic command signals programmers (ECSPs) | 100 |
| I216 Perform preflight inspections of OCC panels | 100 |
| G182 Monitor SDCs | 100 |
| H200 Review, annotate, or initiate aircraft flight or maintenance record forms, such as AFTO Forms 781 series | 100 |
| G189 Perform drum initialized override data tape (DIODT) switch actions | 100 |
| I223 Perform visual inspections of cables or connector air ducts | 100 |
| I208 Perform preflight inspections of digital computer racks (DCRs) | 100 |
| I220 Perform preflight inspections of peripheral rack II | 100 |
| I205 Perform preflight inspections of cooling system indicators | 100 |

TABLE 14

TASKS WITH HIGHEST TRAINING EMPHASIS RATINGS

| | TRG EMP | PERCENT MEMBERS PERFORMING | | TSK DIF |
|---|------------|----------------------------------|-----|------------|
| F160 | 7.85 | 91 | 96 | 5.39 |
| G179 | 6.90 | 100 | 100 | 4.53 |
| F153 | 6.65 | 91 | 96 | 5.11 |
| N360 | 6.60 | 82 | 82 | 4.53 |
| E127 | 6.55 | 64 | 69 | 4.11 |
| F152 | 6.50 | 91 | 96 | 5.68 |
| Perform aircrew emergency procedures | | | | |
| Monitor or operate airborne operational computer programs (AOCs) | | | | |
| Interpret visual fault indicators for fault isolations | | | | |
| Detect cooling faults within forward forced-air cooling system | | | | |
| Maintain individual flight publications | | | | |
| Interpret program wait-state codes, communication packets (COMPACS), or other program data for fault isolations | | | | |
| G177 | 6.50 | 100 | 100 | 3.52 |
| F150 | 6.30 | 100 | 98 | 5.06 |
| N357 | 6.25 | 91 | 93 | 4.27 |
| N358 | 6.25 | 82 | 82 | 4.48 |
| N355 | 6.25 | 82 | 78 | 4.29 |
| N356 | 6.25 | 82 | 84 | 4.28 |
| J241 | 6.25 | 100 | 93 | 5.14 |
| N359 | 6.25 | 82 | 80 | 4.44 |
| J226 | 6.20 | 100 | 98 | 5.15 |
| F156 | 6.20 | 100 | 100 | 4.34 |
| J229 | 6.15 | 100 | 98 | 4.83 |
| G178 | 6.15 | 100 | 100 | 3.92 |
| J273 | 6.10 | 91 | 96 | 5.95 |
| F144 | 6.10 | 100 | 100 | 3.44 |
| J248 | 6.10 | 100 | 98 | 4.24 |
| Isolate indicated CPS faults to associated avionics functional groups | | | | |
| Clean magnetic tape transport (MTT) contact surfaces | | | | |
| Detect faults within MTTs or LPs using visual fault indicators | | | | |

TE MEAN = 3.67; S.D. = 2.12 (HIGH = 5.79)

TD MEAN = 5.00; S.D. = 1.00

performing the task, the percentage of 1-48 months TAFMS performing the task, and the TD rating. As illustrated in Table 14, tasks with the highest TE ratings deal with performing aircrew emergency procedures, monitoring or operating airborne operational computer programs (AOCs), interpreting visual fault indicators for fault isolations, and maintaining individual flight publications.

Table 15 lists the tasks having the highest TD ratings. The percentages of 1-24 months TAFMS, 1-48 months TAFMS, 5-skill level, 7-skill level personnel performing, and TE ratings are also included for each task. Most tasks with high TD ratings are technical functions dealing with preparing job qualification standards, evaluating computer system modifications, and interpreting wiring diagrams. For this reason, the majority of tasks with high TD ratings have extremely low TE ratings and are performed by relatively low percentages of 1-24 months and 1-48 months TAFMS members.

Various lists of tasks, accompanied by TE and TD ratings, are contained in the TRAINING EXTRACT package and should be reviewed in detail by technical school personnel. For a more detailed explanation of TE and TD ratings, see Task Factor Administration in the SURVEY METHODOLOGY section of this report.

Summary

In summary, first-enlistment personnel spend the greatest amount of their job time performing technical duties such as maintaining data processing and display systems. Training Emphasis and Task Difficulty data primarily refer to technical tasks.

The data reported in this section should be reviewed for possible use in the development and validation of training programs resulting from the 1995 merger between the AFSCs 1A5X1 and 1A5X3.

TABLE 15

TASKS WITH HIGHEST TASK DIFFICULTY RATINGS

| | TSK DIF | PERCENT MEMBERS PERFORMING | | | | TRG EMP |
|------|------------|----------------------------------|-------------|-----------|-----------|------------|
| | | 1-24 MOS | 1-48 MOS | 5- LVL | 7- LVL | |
| D98 | 7.25 | 0 | 0 | 6 | 9 | .25 |
| C50 | 7.16 | 18 | 7 | 14 | 35 | .65 |
| F154 | 7.01 | 64 | 62 | 56 | 65 | 2.65 |
| C74 | 6.90 | 0 | 0 | 5 | 35 | .75 |
| D88 | 6.87 | 0 | 0 | 6 | 22 | 1.40 |
| C67 | 6.82 | 0 | 2 | 3 | 0 | .05 |
| J270 | 6.79 | 64 | 73 | 65 | 70 | 4.05 |
| A14 | 6.78 | 0 | 0 | 0 | 4 | .30 |
| C68 | 6.68 | 0 | 2 | 5 | 13 | .00 |
| J268 | 6.68 | 91 | 82 | 77 | 74 | 4.80 |
| F149 | 6.64 | 73 | 71 | 71 | 74 | 3.90 |
| A19 | 6.63 | 0 | 2 | 5 | 0 | .10 |
| J266 | 6.62 | 91 | 80 | 76 | 74 | 3.90 |
| K321 | 6.59 | 64 | 78 | 67 | 65 | 4.20 |
| D85 | 6.59 | 0 | 0 | 20 | 39 | .80 |
| J261 | 6.58 | 91 | 82 | 80 | 91 | 4.80 |
| C72 | 6.57 | 9 | 2 | 30 | 65 | 1.65 |
| B44 | 6.55 | 0 | 0 | 14 | 39 | .15 |
| K317 | 6.54 | 55 | 73 | 70 | 65 | 4.25 |
| C53 | 6.53 | 9 | 2 | 5 | 17 | .15 |
| D89 | 6.53 | 0 | 0 | 14 | 17 | 1.55 |

TD MEAN = 5.00; S.D. = 1.00

TE MEAN = 3.67; S.D. = 2.12 (HIGH = 5.79)

JOB SATISFACTION ANALYSIS

An examination of job satisfaction indicators can be very useful for career ladder managers as they attempt to determine possible factors affecting job performance of career ladder airmen. Job satisfaction data can be expanded to provide indications of general attitudes within specific DAFSC groups.

With this in mind, job satisfaction responses for AFSC 1A5X1 personnel were analyzed and provide the following comparisons: (1) among TAFMS groups of the AFSC 1A5X1 career ladder and a comparative sample of other aircrew personnel surveyed in 1993 and (2) between current and previous AFSC 1A5X1 TAFMS groups.

Table 16 shows the comparison of TAFMS group data of AFSC 1A5X1 personnel to a comparative sample of other aircrew AFSCs surveyed the previous calendar year. These data give a relative measure of how AFSC 1A5X1 personnel job satisfaction responses compare with similar Air Force specialties.

Overall, job satisfaction for all three Airborne Computer Systems TAFMS groups is generally positive. Each TAFMS group indicated extremely high ratings when describing the perceived effectiveness of their overall training programs. However, all TAFMS groups indicated lower job interest ratings, and respondents with 1-48 months TAFMS indicated somewhat lower reenlistment intentions than their comparative sample counterparts.

An indication of changes in job satisfaction perceptions within the career ladder is provided in Table 17, which presents TAFMS group data for current survey respondents and data from respondents to the last OSR of the AFSC 1A5X1 career ladder in 1989 (then AFSC 118X0).

Generally, job satisfaction perceptions have changed somewhat since the 1989 survey. All surveyed TAFMS groups indicated much higher positive responses when describing the perceived effectiveness of their overall training programs. However, members in each of the 1-48, 49-96, and 97+ months TAFMS groups indicated lower expressed job interest. Members with 1-48 months TAFMS also reported lower reenlistment intentions than the 1989 survey.

TABLE 16

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 1A5X1 TAFMS GROUPS IN
CURRENT STUDY TO A COMPARATIVE SAMPLE (PERCENT MEMBERS RESPONDING)

| | 1-48 MONTHS TAFMS | | 49-96 MONTHS TAFMS | | 97+ MONTHS TAFMS | |
|---|-------------------|---------------------------|--------------------|---------------------------|------------------|---------------------------|
| | 1A5X1 (N=45) | COMP SAMPLE (N=233) | 1A5X1 (N=23) | COMP SAMPLE (N=214) | 1A5X1 (N=50) | COMP SAMPLE (N=565) |
| <u>EXPRESSED JOB INTEREST</u> | | | | | | |
| INTERESTING | 69 | 86 | 70 | 91 | 78 | 87 |
| SO-SO | 18 | 8 | 17 | 5 | 10 | 8 |
| DULL | 13 | 6 | 13 | 4 | 12 | 5 |
| DID NOT RESPOND | 0 | 0 | 0 | 0 | 0 | 0 |
| <u>PERCEIVED USE OF TALENTS</u> | | | | | | |
| FAIRLY WELL TO PERFECT | 80 | 85 | 70 | 89 | 88 | 89 |
| NONE TO VERY LITTLE | 20 | 15 | 30 | 11 | 12 | 11 |
| DID NOT RESPOND | 0 | 0 | 0 | 0 | 0 | 0 |
| <u>PERCEIVED USE OF TRAINING</u> | | | | | | |
| FAIRLY WELL TO PERFECT | 98 | 94 | 96 | 94 | 98 | 89 |
| NONE TO VERY LITTLE | 2 | 6 | 4 | 6 | 2 | 11 |
| DID NOT RESPOND | 0 | 0 | 0 | 0 | 0 | 0 |
| <u>SENSE OF ACCOMPLISHMENT FROM JOB</u> | | | | | | |
| SATISFIED | 71 | 84 | 74 | 87 | 70 | 81 |
| NEUTRAL | 18 | 5 | 9 | 4 | 8 | 6 |
| DISSATISFIED | 11 | 11 | 17 | 9 | 22 | 13 |
| DID NOT RESPOND | 0 | 0 | 0 | 0 | 0 | 0 |
| <u>REENLISTMENT INTENTIONS</u> | | | | | | |
| YES OR PROBABLY YES | 58 | 71 | 91 | 82 | 74 | 75 |
| NO OR PROBABLY NO | 42 | 29 | 9 | 18 | 12 | 7 |
| WILL RETIRE | 0 | 0 | 0 | 0 | 14 | 17 |
| DID NOT RESPOND | 0 | 0 | 0 | 0 | 0 | 1 |

Comparative data are from the following AFSCs surveyed in 1993: 1T2X1 (115X0), 1A4X1 (117X0), 1A0X1 (112X0), and 1A5X3 (118X2)

TABLE 17

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 1A5X1 TAFMS GROUPS IN
CURRENT STUDY TO 1989 AFSC 118X0 (PERCENT MEMBERS RESPONDING)

| | 1-48 MONTHS TAFMS | | 49-96 MONTHS TAFMS | | 97+ MONTHS TAFMS | |
|---|-------------------|----------------|--------------------|----------------|------------------|----------------|
| | 1995 (N=45) | 1989 (N=46) | 1995 (N=23) | 1989 (N=25) | 1995 (N=50) | 1989 (N=58) |
| <u>EXPRESSED JOB INTEREST</u> | | | | | | |
| INTERESTING | 69 | 85 | 70 | 88 | 78 | 88 |
| SO-SO | 18 | 13 | 17 | 4 | 10 | 4 |
| DULL | 13 | 2 | 13 | 8 | 12 | 8 |
| DID NOT RESPOND | 0 | 0 | 0 | 0 | 0 | 0 |
| <u>PERCEIVED USE OF TALENTS</u> | | | | | | |
| FAIRLY WELL TO PERFECT | 80 | 89 | 70 | 88 | 88 | 85 |
| NONE TO VERY LITTLE | 20 | 11 | 30 | 12 | 12 | 15 |
| DID NOT RESPOND | 0 | 0 | 0 | 0 | 0 | 0 |
| <u>PERCEIVED USE OF TRAINING</u> | | | | | | |
| FAIRLY WELL TO PERFECT | 98 | 87 | 96 | 88 | 98 | 83 |
| NONE TO VERY LITTLE | 2 | 13 | 4 | 12 | 2 | 17 |
| DID NOT RESPOND | 0 | 0 | 0 | 0 | 0 | 0 |
| <u>SENSE OF ACCOMPLISHMENT FROM JOB</u> | | | | | | |
| SATISFIED | 71 | N/A | 74 | N/A | 70 | N/A |
| NEUTRAL | 18 | N/A | 9 | N/A | 8 | N/A |
| DISSATISFIED | 11 | N/A | 17 | N/A | 22 | N/A |
| DID NOT RESPOND | 0 | N/A | 0 | N/A | 0 | N/A |
| <u>REENLISTMENT INTENTIONS</u> | | | | | | |
| YES OR PROBABLY YES | 58 | 74 | 91 | 60 | 74 | 85 |
| NO OR PROBABLY NO | 42 | 26 | 9 | 40 | 12 | 9 |
| WILL RETIRE | 0 | 0 | 0 | 0 | 14 | 6 |
| DID NOT RESPOND | 0 | 0 | 0 | 0 | 0 | 0 |

NOTE: "Sense of Accomplishment from Job" information was not surveyed in 1989.

IMPLICATIONS

As explained in the **INTRODUCTION**, this survey was conducted primarily to provide a current data base for the Airborne Computer Systems career ladder (AFSC 1A5X1). AFMAN 36-2108 *Specialty Descriptions* for the AFSC 1A5X1 career ladder accurately portray the clusters and jobs identified in this study.

No serious job satisfaction problems appear to exist within this specialty. For the most part, respondents appear satisfied with their jobs. However, all surveyed TAFMS groups reported comparatively low expressed job interest ratings. In addition, AFSC 1A5X1 first-enlistment reenlistment intentions are lower than those of a comparative sample of similar Air Force personnel surveyed in 1993. Career ladder managers may want to review these areas to determine possible causes and corrections.

The data reported in this Occupational Survey Report should be reviewed for possible use in the development and validation of programs resulting from the 1995 merger between the AFSCs 1A5X1 and 1A5X3.

APPENDIX A

REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS

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TABLE A1
AIRBORNE COMPUTER SYSTEMS JOB
(STG 06)

| TASKS | PERCENT MEMBERS PERFORMING (N=113) |
|--|---|
| G179 Monitor or operate airborne operational computer programs (AOCs) | 100 |
| F163 Perform MTT loading procedures | 100 |
| G178 Monitor operator computer console | 100 |
| G176 Monitor DDIs | 100 |
| F156 Load or unload programs using magnetic tapes | 100 |
| G177 Monitor emergency warning indicators | 100 |
| G175 Monitor cooling indicators | 100 |
| G185 Operate DDI keyboard, other than when loading programs | 100 |
| I221 Perform preflight inspections of SDCs | 100 |
| F145 Coordinate computer status with mission crew | 100 |
| I217 Perform preflight inspections of oxygen or special audio distribution system panels | 100 |
| H192 Debrief ground maintenance personnel | 100 |
| I215 Perform preflight inspections of MTTs or LPs | 100 |
| I213 Perform preflight inspections of life support equipment or seats | 100 |
| I223 Perform visual inspections of cables or connector air ducts | 100 |
| I220 Perform preflight inspections of peripheral rack II | 100 |
| I208 Perform preflight inspections of digital computer racks (DCRs) | 100 |
| I210 Perform preflight inspections of electronic command signals programmers (ECSPs) | 100 |
| I216 Perform preflight inspections of OCC panels | 100 |
| I207 Perform preflight inspections of DDIs | 100 |
| G173 Discriminate between hardware and software failures | 100 |
| I214 Perform preflight inspections of MTT-3 direct load cables | 100 |
| K287 Clean SDC switches | 99 |
| F157 Load or unload programs using operator computer control (OCC) panels | 99 |
| F146 Initiate programs using digital display indicators (DDIs) and keyboard | 99 |
| F144 Clean magnetic tape transport (MTT) contact surfaces | 99 |
| G187 Operate OCC panels | 99 |
| G182 Monitor SDCs | 99 |
| H198 Perform premission requirements, such as reviewing flight crew information file (FCIF) and annotating flight orders | 99 |
| I212 Perform preflight inspections of in-flight spares, technical orders, or templates | 99 |

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APPENDIX B

COMPLETE LISTING OF DUTY CATEGORIES AND TASK STATEMENTS

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LISTING OF DUTY STATEMENTS

- A ORGANIZING AND PLANNING
- B DIRECTING AND IMPLEMENTING
- C INSPECTING AND EVALUATING
- D TRAINING
- E PERFORMING GENERAL ADMINISTRATIVE AND SUPPLY ACTIVITIES
- F PERFORMING GENERAL IN-FLIGHT ACTIVITIES
- G MONITORING OR OPERATING ELECTRONIC COMPUTER SYSTEMS
- H PERFORMING PERMISSION AND POSTMISSION ACTIVITIES
- I PERFORMING PREFLIGHT INSPECTIONS OR PROCEDURES
- J MAINTAINING DATA PROCESSING SYSTEMS
- K MAINTAINING DATA DISPLAY SYSTEMS
- L MAINTAINING ELECTRONIC SYSTEM TEST SET GROUPS (ESTSGs)
- M MAINTAINING POWER DISTRIBUTION SYSTEMS
- N MAINTAINING COOLING DISTRIBUTION SYSTEMS
- O PERFORMING MOBILITY ACTIVITIES

LISTING OF TASK STATEMENTS

A ORGANIZING AND PLANNING

- 1 A 1 Assign personnel to duty positions
- 2 A 2 Assign sponsors for newly assigned personnel
- 3 A 3 Compile data for reports
- 4 A 4 Coordinate job requirements with other sections
- 5 A 5 Determine equipment or software maintenance requirements
- 6 A 6 Determine logistics requirements, such as space, personnel, equipment, software, or supplies
- 7 A 7 Determine publications requirements
- 8 A 8 Develop self-assessment programs or procedures
- 9 A 9 Establish performance standards for subordinates
- 10 A 10 Establish work methods

- 11 A 11 Establish work priorities
- 12 A 12 Initiate equipment or software maintenance actions
- 13 A 13 Plan briefings
- 14 A 14 Plan cost-reduction programs
- 15 A 15 Plan safety programs
- 16 A 16 Plan security programs
- 17 A 17 Plan standardization/evaluation programs or procedure
- 18 A 18 Plan work assignments
- 19 A 19 Prepare unit deployment or mobility plans
- 20 A 20 Schedule leaves
- 21 A 21 Schedule personnel for alert or flight duty
- 22 A 22 Schedule personnel for school or temporary duty (TDY) assignments
- 23 A 23 Schedule work assignments
- 24 A 24 Schedule work priorities
- 25 A 25 Write job descriptions

B DIRECTING AND IMPLEMENTING

- 1 B 26 Adjust daily schedules to meet operational commitments`
- 2 B 27 Conduct supervisory orientations for newly assigned personnel
- 3 B 28 Counsel personnel
- 4 B 29 Direct development or maintenance of status indicators, such as boards, graphs, or charts
- 5 B 30 Direct maintenance of technical order files
- 6 B 31 Draft recommendations for changes in equipment or software
- 7 B 32 Implement cost-reduction programs
- 8 B 33 Implement safety or security programs
- 9 B 34 Implement self-assessment programs or procedures
- 10 B 35 Implement standardization/evaluation programs
- 11 B 36 Implement work methods
- 12 B 37 Initiate action to correct substandard performance of personnel
- 13 B 38 Initiate personnel action requests
- 14 B 39 Interpret policies, directives, or procedures for subordinates
- 15 B 40 Maintain contingency plans
- 16 B 41 Supervise Airborne Computer Systems Apprentices (AFSC 1A531)
- 17 B 42 Supervise Airborne Computer Systems Journeymen (AFSC 1A551)
- 18 B 43 Supervise Airborne Computer Systems Craftsmen (AFSC 1A571)
- 19 B 44 Supervise personnel in career ladders other than AFSC 1A5X1

C INSPECTING AND EVALUATING

- 1 C 45 Analyze workload requirements
- 2 C 46 Complete USAF Graduate Evaluation Program forms or questionnaires
- 3 C 47 Conduct standardization/evaluation critiques
- 4 C 48 Conduct standardization/evaluation inspections
- 5 C 49 Draft replies to inspection reports
- 6 C 50 Evaluate computer system modifications, such as changes in software, hardware, or contractor designs
- 7 C 51 Evaluate cost-reduction programs
- 8 C 52 Evaluate inspection report findings
- 9 C 53 Evaluate job descriptions
- 10 C 54 Evaluate maintenance or utilization of workspace, equipment, or supplies
- 11 C 55 Evaluate or determine causes of mission operational discrepancies
- 12 C 56 Evaluate personnel for compliance with technical orders
- 13 C 57 Evaluate personnel for promotion, demotion, reclassification, or special awards
- 14 C 58 Evaluate procedures for storage, inventory, or inspection of property items
- 15 C 59 Evaluate safety or security programs
- 16 C 60 Evaluate self-assessment procedures
- 17 C 61 Evaluate self-assessment programs
- 18 C 62 Evaluate standardization/evaluation programs or procedures
- 19 C 63 Evaluate work schedules
- 20 C 64 Indorse enlisted performance reports (EPRs)
- 21 C 65 Inspect computer system modifications, such as changes in software, hardware, or contractor designs
- 22 C 66 Inspect personnel for compliance with military standards
- 23 C 67 Investigate mishaps or incidents
- 24 C 68 Perform feasibility studies
- 25 C 69 Review EPRs
- 26 C 70 Review equipment records
- 27 C 71 Review technical order changes
- 28 C 72 Write EPRs
- 29 C 73 Write recommendations for awards or decorations
- 30 C 74 Write staff studies, surveys, or special reports, other than training reports

D TRAINING

- 1 D 75 Administer tests
- 2 D 76 Annotate training records
- 3 D 77 Assign course instructors

- 4 D 78 Assign on-the-job training (OJT) trainers
5 D 79 Conduct academic course training
6 D 80 Conduct evaluator upgrade training
7 D 81 Conduct in-flight training
8 D 82 Conduct instructor upgrade training
9 D 83 Conduct mission qualification training (MQT)
10 D 84 Conduct training conferences or briefings
11 D 85 Determine academic course training requirements
12 D 86 Determine in-flight training requirements
13 D 87 Determine OJT requirements
14 D 88 Develop new equipment or software training programs
15 D 89 Develop performance tests
16 D 90 Direct or implement training programs
17 D 91 Evaluate crewmember performance, such as CDMO, CDMT, Instructor CDMT, or Evaluator CDMT
18 D 92 Evaluate personnel to determine training needs
19 D 93 Evaluate progress of trainees
20 D 94 Evaluate training methods or techniques, other than training programs
21 D 95 Maintain study reference files
22 D 96 Maintain training records, charts, or graphs
23 D 97 Plan training
24 D 98 Prepare job qualification standards (JQSs)
25 D 99 Prepare lesson plans
26 D 100 Prepare training schedules
27 D 101 Procure training aids, space, or equipment
28 D 102 Schedule personnel for specialized training
29 D 103 Score tests
30 D 104 Write justification for training equipment or facilities
31 D 105 Write test questions
32 D 106 Write training reports

E PERFORMING GENERAL ADMINISTRATIVE AND SUPPLY ACTIVITIES

- 1 E 107 Annotate cabinet, safe, or room security forms
2 E 108 Annotate simulator operation logs
3 E 109 Brief command staff agencies on current operational status of equipment or systems
4 E 110 Complete accident report forms
5 E 111 Complete AF Forms 457 (USAF Hazard Report)
6 E 112 Complete records of evaluation
7 E 113 Conduct physical security inspections of facilities
8 E 114 Develop equipment checklists

- 9 E 115 Develop worksheets or logs
- 10 E 116 Document destruction of classified materials or documents
- 11 E 117 Escort visitors through facilities
- 12 E 118 Establish or maintain personnel security access lists
- 13 E 119 Establish supply requirements
- 14 E 120 Evaluate or identify supply problems
- 15 E 121 Initiate document error reports (DERs) for operator manuals
- 16 E 122 Initiate program incident reports (PIRs)
- 17 E 123 Initiate Software Design Reports (SDRs)
- 18 E 124 Inventory equipment, software, or supplies
- 19 E 125 Maintain currency requirements, such as flight physical, life support training, or altitude chamber
- 20 E 126 Maintain flying or alert schedules
- 21 E 127 Maintain individual flight publications
- 22 E 128 Maintain lists of classified materials or documents
- 23 E 129 Maintain mission logs
- 24 E 130 Maintain property custodian authorization/custody receipt listings (CA/CRLs)
- 25 E 131 Maintain publications libraries, other than technical order files
- 26 E 132 Maintain status indicators, such as boards, graphs, or charts
- 27 E 133 Maintain technical order files
- 28 E 134 Perform annual aircrew ground training and certification requirements
- 29 E 135 Perform basic aircrew ground training and certification requirements
- 30 E 136 Prepare schedules or rosters, such as shift schedules or recall rosters
- 31 E 137 Review or initiate AF Forms 847 (Recommendation for Change of Publication (Flight Publications))
- 32 E 138 Review or initiate flight crew information file (FCIF) items
- 33 E 139 Review or initiate technical order system forms, such as AFTO Forms 22, 110, 110A, 110B, and 131
- 34 E 140 Verify entry authorization of visitors
- 35 E 141 Write inputs for PIRs
- 36 E 142 Write inputs for SDRs

F PERFORMING GENERAL IN-FLIGHT ACTIVITIES

- 1 F 143 Clean filters
- 2 F 144 Clean magnetic tape transport (MTT) contact surfaces
- 3 F 145 Coordinate computer status with mission crew
- 4 F 146 Initiate programs using digital display indicators (DDIs) and keyboard
- 5 F 147 Initiate programs using situation display consoles (SDCs) and keyboard
- 6 F 148 Interpret block diagrams for fault isolations
- 7 F 149 Interpret logic or schematic diagrams for fault isolations
- 8 F 150 Interpret on-line status indicators for fault isolations

- 9 F 151 Interpret program printouts for fault isolations
- 10 F 152 Interpret program wait-state codes, communication packets (COMPACS), or other program data for fault isolations
- 11 F 153 Interpret visual fault indicators for fault isolations
- 12 F 154 Interpret wiring diagrams for inter- or intra-unit data flow
- 13 F 155 Load or unload programs using magnetic drums
- 14 F 156 Load or unload programs using magnetic tapes
- 15 F 157 Load or unload programs using operator computer control (OCC) panels
- 16 F 158 Load patches to alter program parameters
- 17 F 159 Locate units, connectors, components, modules, columns, rows, pins, or test points using alpha/numeric designators
- 18 F 160 Perform aircrew emergency procedures
- 19 F 161 Perform aircrew in-flight training and certification requirements
- 20 F 162 Perform general cleaning of electronic computer equipment
- 21 F 163 Perform MTT loading procedures
- 22 F 164 Perform operational checkouts of aircraft after modifications or maintenance
- 23 F 165 Perform operational tests of program software
- 24 F 166 Remove or replace minor electrical hardware, such as lamps or switches
- 25 F 167 Remove or replace nonelectrical hardware, such as screws, nuts, or covers
- 26 F 168 Reseat, reconnect, or reconfigure inter- or intra-unit wiring cables
- 27 F 169 Reseat, remove, or replace line replaceable units (LRUs) or secondary replaceable units (SRUs)

G MONITORING OR OPERATING ELECTRONIC COMPUTER SYSTEMS

- 1 G 170 Configure input/output interface assemblies
- 2 G 171 Coordinate computer system mission or simulator status with mission crew commander (MCC) or other users
- 3 G 172 Determine software requirements
- 4 G 173 Discriminate between hardware and software failures
- 5 G 174 Identify or analyze software deficiencies
- 6 G 175 Monitor cooling indicators
- 7 G 176 Monitor DDIs
- 8 G 177 Monitor emergency warning indicators
- 9 G 178 Monitor operator computer console
- 10 G 179 Monitor or operate airborne operational computer programs (AOCs)
- 11 G 180 Monitor or operate master tape copy and compare (MTACO) utility programs
- 12 G 181 Monitor or operate onboard recording tape replay program (ORTRP) utility programs
- 13 G 182 Monitor SDCs
- 14 G 183 Monitor special equipment
- 15 G 184 Operate aircraft radios or intercom systems

- 16 G 185 Operate DDI keyboard, other than when loading programs
- 17 G 186 Operate DDI or SDC, other than DDI or SDC keyboards
- 18 G 187 Operate OCC panels
- 19 G 188 Operate SDC keyboard, other than when loading programs
- 20 G 189 Perform drum initialized override data tape (DIODT) switch actions

H PERFORMING PREMISSION AND POSTMISSION ACTIVITIES

- 1 H 190 Check out or turn in mission software or support documents
- 2 H 191 Conduct mission planning sessions
- 3 H 192 Debrief ground maintenance personnel
- 4 H 193 Examine historical data for recurring equipment problems
- 5 H 194 Identify mission software requirements
- 6 H 195 Participate in general or specialized mission briefings, other than intelligence briefings
- 7 H 196 Participate in postflight intelligence debriefings
- 8 H 197 Participate in premission intelligence briefings
- 9 H 198 Perform premission requirements, such as reviewing flight crew information file (FCIF) and annotating flight orders
- 10 H 199 Requisition mission software
- 11 H 200 Review, annotate, or initiate aircraft flight or maintenance record forms, such as AFTO Forms 781 series

I PERFORMING PREFLIGHT INSPECTIONS OR PROCEDURES

- 1 I 201 Load line printers (LPs) paper
- 2 I 202 Perform preflight inspections of computer arithmetic units (CAUs)
- 3 I 203 Perform preflight inspections of computer control channel A (CCA) and control channel B (CCB)
- 4 I 204 Perform preflight inspections of control power supplies (CPSs)
- 5 I 205 Perform preflight inspections of cooling system indicators
- 6 I 206 Perform preflight inspections of core memory units (CMUs)
- 7 I 207 Perform preflight inspections of DDIs
- 8 I 208 Perform preflight inspections of digital computer racks (DCRs)
- 9 I 209 Perform preflight inspections of digital multiplexer (DMX) units
- 10 I 210 Perform preflight inspections of electronic command signals programmers (ECSPs)
- 11 I 211 Perform preflight inspections of electronic system test set groups (ESTSGs)
- 12 I 212 Perform preflight inspections of in-flight spares, technical orders, or templates
- 13 I 213 Perform preflight inspections of life support equipment or seats

- 14 I 214 Perform preflight inspections of MTT-3 direct load cables
- 15 I 215 Perform preflight inspections of MTTs or LPs
- 16 I 216 Perform preflight inspections of OCC panels
- 17 I 217 Perform preflight inspections of oxygen or special audiodistribution system panels
- 18 I 218 Perform preflight inspections of P-67 circuit breaker panels
- 19 I 219 Perform preflight inspections of peripheral rack I
- 20 I 220 Perform preflight inspections of peripheral rack II
- 21 I 221 Perform preflight inspections of SDCs
- 22 I 222 Perform preflight inspections of teletypewriter keyboardtransmitters (TKTs)
- 23 I 223 Perform visual inspections of cables or connector air ducts
- 24 I 224 Secure magnetic tape cases on aircraft
- 25 I 225 Secure personal equipment on aircraft

J MAINTAINING DATA PROCESSING SYSTEMS

- 1 J 226 Detect DCR equipment faults using in-flight performance programs (IFPPs)
- 2 J 227 Detect DCR faults using OCC panels
- 3 J 228 Detect DCR faults using off-line maintenance computer programs (MCPs)
- 4 J 229 Detect DCR faults using visual fault indicators
- 5 J 230 Detect faults within CAUs using OCC panels
- 6 J 231 Detect faults within CAUs using off-line MCPs
- 7 J 232 Detect faults within CAUs using visual fault indicators
- 8 J 233 Detect faults within CCA and CCB using OCC panels
- 9 J 234 Detect faults within CCA and CCB using off-line MCPs
- 10 J 235 Detect faults within CCA and CCB using visual fault indicators
- 11 J 236 Detect faults within CMUs using OCC panels
- 12 J 237 Detect faults within CMUs using off-line MCPs
- 13 J 238 Detect faults within CMUs using visual fault indicators
- 14 J 239 Detect faults within CPSs using IFPPs, other than power faults
- 15 J 240 Detect faults within CPSs using off-line MCPs
- 16 J 241 Detect faults within CPSs using system maintenance computer programs (SMCPs)
- 17 J 242 Detect faults within CPSs using visual fault indicators
- 18 J 243 Detect faults within DMX using OCC panel
- 19 J 244 Detect faults within DMX using off-line MCPs
- 20 J 245 Detect faults within DMX using visual fault indicators
- 21 J 246 Detect faults within MTTs or LPs using OCC panels
- 22 J 247 Detect faults within MTTs or LPs using off-line MCPs
- 23 J 248 Detect faults within MTTs or LPs using visual fault indicators
- 24 J 249 Detect faults within MTTs using built-in test equipment (BITE)
- 25 J 250 Detect faults within OCC panels using off-line MCPs
- 26 J 251 Detect faults within OCC panels using visual indicators
- 27 J 252 Detect faults within peripheral rack I using OCC panels

- 28 J 253 Detect faults within peripheral rack I using visual fault indicators
- 29 J 254 Detect magnetic drum storage (MDS) unit faults using off-line MCPs
- 30 J 255 Isolate DCR faults to failing components, such as failing power contactors or cables
- 31 J 256 Isolate faults to CAUs
- 32 J 257 Isolate faults to CCA and CCB
- 33 J 258 Isolate faults to CMUs
- 34 J 259 Isolate faults to DCRs
- 35 J 260 Isolate faults to DMXs
- 36 J 261 Isolate faults within CAUs to failing SRUs
- 37 J 262 Isolate faults within CCA and CCB to failing LP controllers
- 38 J 263 Isolate faults within CCA and CCB to failing MDS unit controllers
- 39 J 264 Isolate faults within CCA and CCB to failing MTTs controllers
- 40 J 265 Isolate faults within CCA and CCB to failing SRUs
- 41 J 266 Isolate faults within CMUs to failing SRUs
- 42 J 267 Isolate faults within CPSs to failing SRUs
- 43 J 268 Isolate faults within DMXs to failing SRUs
- 44 J 269 Isolate faults within peripheral rack I to failing MDS
- 45 J 270 Isolate faults within peripheral rack I to failing MDS SRUs
- 46 J 271 Isolate faults within peripheral rack II to failing LPs
- 47 J 272 Isolate faults within peripheral rack II to failing MTTs
- 48 J 273 Isolate indicated CPS faults to associated avionics functional groups
- 49 J 274 Load and operate MCPs
- 50 J 275 Perform operational checks of CAUs
- 51 J 276 Perform operational checks of CCA and CCB
- 52 J 277 Perform operational checks of CMUs
- 53 J 278 Perform operational checks of CPSs
- 54 J 279 Perform operational checks of DMXs
- 55 J 280 Perform operational checks of LPs
- 56 J 281 Perform operational checks of MDSs
- 57 J 282 Perform operational checks of MTTs
- 58 J 283 Perform operational checks of OCC panels

K MAINTAINING DATA DISPLAY SYSTEMS

- 1 K 284 Clean DDI monitors
- 2 K 285 Clean DDI switches
- 3 K 286 Clean SDC monitors
- 4 K 287 Clean SDC switches
- 5 K 288 Clean SDC trackballs
- 6 K 289 Detect faults within DDI refresh channels using DDI presentations, other than visual fault indicators
- 7 K 290 Detect faults within DDI refresh channels using SMCPs

- 8 K 291 Detect faults within DDI using DDI presentations, other than visual fault indicators
- 9 K 292 Detect faults within DDI using display dialog
- 10 K 293 Detect faults within DDI using SMCPs
- 11 K 294 Detect faults within DDI using visual fault indicators
- 12 K 295 Detect faults within display processors (DPs) using display dialog
- 13 K 296 Detect faults within DPs using SMCPs
- 14 K 297 Detect faults within DPs using visual fault indicators
- 15 K 298 Detect faults within ECSPs using SMCPs
- 16 K 299 Detect faults within SDC refresh channels using display dialog
- 17 K 300 Detect faults within SDC refresh channels using SDC presentations
- 18 K 301 Detect faults within SDC refresh channels using SMCPs
- 19 K 302 Detect faults within SDCs using display dialog
- 20 K 303 Detect faults within SDCs using SDC presentations
- 21 K 304 Detect faults within SDCs using SMCPs
- 22 K 305 Detect faults within SDCs using visual fault indicators, other than power and cooling faults
- 23 K 306 Isolate faults to DDI refresh channels
- 24 K 307 Isolate faults to DDIs
- 25 K 308 Isolate faults to DPs
- 26 K 309 Isolate faults to ECSPs
- 27 K 310 Isolate faults to SDC refresh channels
- 28 K 311 Isolate faults to SDCs
- 29 K 312 Isolate faults within DDI refresh channels to faulty power supplies
- 30 K 313 Isolate faults within DDI refresh channels to SRUs, other than faulty power supplies
- 31 K 314 Isolate faults within DDIs to malfunctioning SRUs, other than TKTs
- 32 K 315 Isolate faults within DDIs to malfunctioning TKTs
- 33 K 316 Isolate faults within DPs to faulty power supplies
- 34 K 317 Isolate faults within DPs to SRUs, other than faulty power supplies
- 35 K 318 Isolate faults within ECSPs to components, such as broken hardware and tripped circuit breakers
- 36 K 319 Isolate faults within malfunctioning SDCs console units to SRUs
- 37 K 320 Isolate faults within malfunctioning SDCs monitor units to SRUs
- 38 K 321 Isolate faults within SDC refresh channels to SRUs, other than faulty power supplies
- 39 K 322 Isolate faults within SDCs refresh channels to faulty power supplies
- 40 K 323 Isolate faults within SDCs to malfunctioning console units
- 41 K 324 Isolate faults within SDCs to malfunctioning monitor units
- 42 K 325 Perform operational checks on DDI refresh channels
- 43 K 326 Perform operational checks on DDIs
- 44 K 327 Perform operational checks on DPs
- 45 K 328 Perform operational checks on ECSPs
- 46 K 329 Perform operational checks on SDC refresh channels
- 47 K 330 Perform operational checks on SDCs
- 48 K 331 Perform operational checks on TKTs

L MAINTAINING ELECTRONIC SYSTEM TEST SET GROUPS (ESTSGs)

- 1 L 332 Detect faults within ESTSGs using off-line MCPs
- 2 L 333 Detect faults within ESTSGs using SMCPs
- 3 L 334 Detect faults within ESTSGs, other than using off-line MCP or SMCP
- 4 L 335 Isolate faults within ESTSGs to malfunctioning access modules
- 5 L 336 Isolate faults within ESTSGs to malfunctioning interface control units
- 6 L 337 Isolate faults within ESTSGs to malfunctioning junction boxes
- 7 L 338 Isolate faults within ESTSGs to malfunctioning multiplex modules
- 8 L 339 Isolate faults within ESTSGs to malfunctioning power distribution panels
- 9 L 340 Perform operational checks of ESTSGs using off-line MCPs
- 10 L 341 Perform operational checks of ESTSGs using SMCPs

M MAINTAINING POWER DISTRIBUTION SYSTEMS

- 1 M 342 Detect power faults within aircraft power distribution systems
- 2 M 343 Detect power faults within CPS
- 3 M 344 Detect power faults within data analysis programming group (DAPGs)
- 4 M 345 Detect power faults within ECSPs
- 5 M 346 Isolate power faults to aircraft power distribution system
- 6 M 347 Isolate power faults to CPSs
- 7 M 348 Isolate power faults to DAPGs
- 8 M 349 Isolate power faults to ECSPs
- 9 M 350 Isolate power faults within CPSs to SRUs
- 10 M 351 Isolate power faults within DAPGs to SRUs
- 11 M 352 Isolate power faults within ECSPs to SRUs
- 12 M 353 Isolate power faults within ESTSGs

N MAINTAINING COOLING DISTRIBUTION SYSTEMS

- 1 N 354 Detect cooling faults within aft forced-air cooling systems
- 2 N 355 Detect cooling faults within CPSs
- 3 N 356 Detect cooling faults within DAPGs
- 4 N 357 Detect cooling faults within DDIs or SDCs
- 5 N 358 Detect cooling faults within draw-thru cooling air system
- 6 N 359 Detect cooling faults within ECSPs
- 7 N 360 Detect cooling faults within forward forced-air cooling system

- 8 N 361 Isolate cooling faults to CPSs
- 9 N 362 Isolate cooling faults to DDIs or SDCs
- 10 N 363 Isolate cooling faults to E20/21 cabinet valves
- 11 N 364 Isolate cooling faults to E22 cabinet valves
- 12 N 365 Isolate cooling faults to E23 cabinet valves
- 13 N 366 Isolate cooling faults within draw-thru cooling air system
- 14 N 367 Isolate cooling faults within forward forced-air cooling system

O PERFORMING MOBILITY ACTIVITIES

- 1 O 368 Don and doff chemical warfare personal protective clothing
- 2 O 369 Execute mobility processing checklists
- 3 O 370 Fire weapons
- 4 O 371 Maintain immunization records
- 5 O 372 Maintain security throughout flight phase of deployments
- 6 O 373 Pack individual mobility equipment for deployments
- 7 O 374 Perform aircraft cocking or uncocking procedures
- 8 O 375 Perform alert aircraft changeovers
- 9 O 376 Perform alert crew changeovers
- 10 O 377 Perform cargo courier duties
- 11 O 378 Perform classified courier duties
- 12 O 379 Perform decontamination procedures for chemical warfare agents
- 13 O 380 Perform first aid lifesaving techniques
- 14 O 381 Prepare personal clothing and equipment for deployment